mens of the *fosteri* race have been collected and the variation toward typical *appressa* is only about five per cent. In the type locality the specimens were found under heavy blocks of limestone in gullies and hillsides.

What the distribution of the new race may be is not at present apparent from the material in the collection of the museum. The typical form is represented by some 25 lots ranging from Iowa to Alabama and Georgia. In Illinois the race *fosteri* has been collected along the Ohio from Shawneetown to Cairo and on the Mississippi from Burlington, Iowa to Cairo. It was also found in Calhoun Co. in both the Illinois and the Mississippi valleys. How far north it may extend in the state is not known. Its distribution outside Illinois is unknown. It occurs in Iowa in the Mississippi valley and probably southward in Missouri. It should be found on the Indiana side of the Wabash River and on the Kentucky side of the Ohio River.

The specific name is given in recognition of the efficient work of Mr. Thural Dale Foster, a graduate student in zoology in the University of Illinois, my assistant in the molluscan survey of Illinois now being conducted by the Illinois State Natural History Survey. This organization has deposited its entire collection of land Mollusca in the museum of the University of Illinois to form the basis for a manual of the land mollusks of Illinois.

NEW WEST AMERICAN SPECIES OF BULIMULUS AND NASSA

BY H. A. PILSBRY AND H. N. LOWE

BULIMULUS SANMARCOSENSIS, n. sp. Pl. 5, fig. 1.

San Marcos Island, Gulf of California. Type 158976 ANSP., collected by H. N. Lowe, January, 1932. Paratypes in Lowe collection.

A species related to *B. lamellifer;* oblong-conic, glossy, of 6½ convex whorls, the initial half whorl smooth, next whorl delicately costulate, subsequent whorls with weak growth

wrinkles but no spiral striation. Aperture shaped about as in *B. ximenez* Hanna but white within. Axis with a more or less emarginate vertical fold within the last whorl a half turn back, and much smaller than the internal fold of *B. ximenez* or *B. lamellifer*.

Length 31.3 mm.; diam. 14.7 mm.

Length 30.3 mm.; diam. 16.0 mm.

This is the first land shell to be found on San Marcos, which is a long distance from any island inhabited by snails of this group.

BULIMULUS CARMEN, n. sp. Pl. 5, fig. 2.

Salinas Bay, Carmen Island, Gulf of California. Type 158995 ANSP., collected by H. N. Lowe, Jan., 1932. Paratypes in Lowe collection.

The shell is less solid than usual in *B. ximenez*, and of rather stout figure, the color avellaneous. Fresh specimens and some bleached ones show fine, granulose spirals on the last whorl, but sometimes these are not visible in bleached shells. The internal axial fold is much weaker than in *B. ximenez*, and of the corkscrew form, not a large vertical plate as in that species. It is perhaps still nearer to *B. slevini* Hanna, of Montserrate Island, but the internal flange of the axis, when developed, is situated higher up. In some specimens which seem otherwise to be adult the axis has practically no callus, and viewed in the back it is nearly straight and somewhat oblique.

Length 35.5 mm.; diam. 17.00 mm.; 6½ whorls.

It is quite possible that this form would better be treated as a race of *B. slevini*. The latter often has a quite perceptible spiral callus on the axis, though other specimens in the same lot may show none. *B. slevini* is undoubtedly a *Leptobyrsus* (*Sonorina*)[1], having the appearance and surface of that group, and quite unlike the group of *B. montezuma*.

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[1] *Sonorina* was proposed to replace *Leptobyrsus* Crosse and Fischer, which was supposed to be preoccupied by *Leptobyrsa*, in Insecta; but late decisions of the International Commission would allow both of these names to stand.

At the south end of Carmen Island small specimens of *B. ximenez* were found, with the axial fold typical of that species.

NASSA BAILYI, n. sp. Pl. 5, figs. 4, 5.

Champerico, Guatemala. Type and paratypes 141642, 141642*a*, ANSP., collected by J. L. Baily, Jr., 1926; other paratypes in collections of Baily and Lowe. Also Mazatlan, collected by Lowe.

The ovate-conic shell has a straightly conic spire and acute apex; about 8 strongly convex whorls, the last ascending in front. Color violet-black, fading to violet-slate on the base and below the suture, with an interrupted white band at the shoulder and ascending the spire. Peristome ochraceous-orange. Axial sculpture of folds equal to their intervals, and obsolete in the concavity below the suture. Spiral sculpture of two or three threads in the subsutural concavity (often obsolete) and stronger cords on the convexity of the whorls, three or four on the penult, six to eight on the last whorl. Siphonal fasciole prominent. Aperture dark and smooth within. Outer lip narrower and strongly arcuate anteriorly, preceded by a varix, and with about 6 (5 to 10) short folds at the inner margin. Columella vertical, dilated, with a sharp basal fold and some irregular short folds on its face. Parietal callus transparent, showing the dark under color, its edge appressed; a short fold near the posterior angle.

Length 14 mm.; diam. 9.2 mm.

Length 9.7 mm.; diam. 6.0 mm. Smallest.

Length 15.0 mm.; diam. 9.8 mm. Type.

This species belongs to the group of *N. luteostoma*, a larger shell with different sculpture. From its wide distribution and conspicuously colored aperture we were unwilling to believe it new, but a careful search of the literature has not turned up anything closely similar.

NASSA LEUCOPS, n. sp. Pl. 5, fig. 3.

Estuary back of Kino Bay, Sonora, Mexico. Type 158260

ANSP., collected by H. N. Lowe. Paratypes in Lowe collection.

The shell is acutely ovate-conic, very pale gray with brownish tubercles and on the back of last whorl some blackish-brown streaks. Axial sculpture of many low, close folds which are raised into rounded tubercles where equally low spiral cords cross them; both folds and cords being very weak except at their intersections. On the penult whorl there are about 20 ribs and on its back 3 spirals; on its front and on earlier whorls 2 spirals, and on the last whorl 8 spirals. The last three axial ribs are short, hardly extending below the periphery, leaving a relatively plain area back of the lip. A well developed varix strengthens the lip. Aperture smooth within, the outer lip with about 5 short ridges at its inner edge, a median one decidedly larger than the others. Columellar lip white, often with a brown spot near the root of the columella, reflected, with free edge, a sharp basal fold and several short, indistinct plaits on its face. Parietal callus transparent, appressed. There is a rather long fold near the posterior angle.

Length 14.5 mm.; diam. 8.6 mm.; 9 whorls. Type.

Length 11.3 mm.; diam. 7.0 mm.

This species is closely related to *N. moesta* Hinds (*N. brunneostoma* Stearns), but it is decidedly wider in figure, has a row of tubercles fewer on the penult whorl, and the lip and columellar callus are white, not dark brown as in *N. moesta*.

A PARASITIC BRACHIOPOD

BY CARROLL LANE FENTON

Modern brachiopods of the order Telotremata normally spend their adult lives firmly attached to rocks, shells or other solid objects in their environments. Parasitic growth can occur only under unusual circumstances, and then as an abnormality. Embryonic brachiopods have no means of penetrating the bodies of other organisms, and it must be uncommon for them to find their way into such bodies and